THESIS ABSTRACT

Name: **Dr. Shanti Kumari Debbarma**

Title: **A prospective observational study for the effect of vaginal pH on dinoprostone gel for cervical ripening/labor induction.**

Study design: Prospective observational study.

Period of study: 1(one year)

Institution: Govt. Institute of Social Obstetrics and Kasturba Gandhi Hospital for women and children.

Background: To observe if vaginal pH has any effect on the efficacy of dinoprostone / PGE2 gel commonly used for cervical ripening / labor induction in post-term patients.

Methods: A prospective study was conducted in 100 women in labour ward who were admitted for induction of labor. Vaginal pH and pre-induction
Bishops score measured before inducing the labor using dinoprostone gel.
Bishops score was measured after 6 hour to assess any change in score; the outcome of the gel induction is also assessed by number of vaginal deliveries, induction to vaginal delivery interval. Association between vaginal pH and age, parity, draining PV is also studied.

Results: This study showed a statistically significant association between higher vaginal pH and change in Bishops score after 6 hours from the pre-induction Bishops score. At higher pH >4.5, if PGE2 gel induction is done there is more chance of vaginal delivery than at lower pH<4.5. Also in case of pre-labour rupture of membrane who presented with draining per vagina, they have more chance of high

vaginal pH, so PGE2 gel induction on these patients also showed higher number of vaginal deliveries.

In this study, we have also seen that at higher pH after PGE2 gel induction the time from induction to vaginal delivery has also shortened significantly (within 12 hours). No association has been found between vaginal pH with age and parity.

Conclusion: Vaginal pH can be an important parameter in predicting the success of PGE2 gel induction in achieving successful vaginal deliveries.

Key words: Dinoprostone (PGE2) Gel, Vaginal pH, Cervical Ripening, Labor Induction.